

IMPROVED SPORT CATCHING GLOVE

CROSS-REFERENCES TO RELATED APPLICATION

The present application is a Continuation-in-part of US patent application 09/922,984 filed on December 10, 2001.

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to an improved sport catching glove adapted for catching a moving article comprising an internal hand wrapper. The hand wrapper is designed to allow free movements of all fingers and of wrist. The sport catching glove is constructed and arranged to prevent it from escaping from grip of the hand while allowing its free movement along wrist axis when worn by a goalkeeper.

Description of Prior Art

[0002] Hockey goalies use two types of gloves, namely a blocker glove comprising a large padded section over the back side of the hand and designed to maintain the hockey stick, and a catching glove. The catching glove generally comprises a large flexible surface defining a large pocket enabling the hockey goalie to catch and entrap circulating pucks. As hockey pucks may travel over hundred miles an hour (100 mph), construction of catching glove must provide a structure that prevent pain sensation and potential injuries and therefore comprises numerous paddings. However, catching glove must be sufficiently flexible to entrap over a moving puck or to be largely opened to cover a puck on the ice. Development of new materials over last years allowed the production of catching glove meeting these flexibility and resistance requirements.

[0003] To provide a goalie with an optimal control over its catching glove, mobility of the catching glove along the goalie's wrist axis is also required and the actual design of catching gloves makes it difficult to achieve. Indeed, means by which goalie holds its catching glove comprises a catching glove cavity harboring thumb and finger stalls, as well as thumb and smallest finger straps that fit somewhat loosely around thumb and fingers. To avoid the catching glove from escaping from hand, a strap covering a part of hand and wrist that can be secured is also provided. Securing the latter strap reduces the mobility of goalie's wrist and goalie must therefore compromise its control over the catching glove to avoid slippage. Alternatively, the goalie may loose the strap to maintain a proper control, but increases risks of loosing the catching glove.

[0004] U.S. Pat. No. 5,717,994 to Goldsmith reports a catching glove offering a superior control and effectiveness over conventional catching glove by providing a light weight stiffener in the distal portion of fingers and an elastomeric retainer that covers exclusively the back portion of the hand. The elastomeric retainer is designed to provide goalie's hand with a better contact with the stiffener and the palm portion of the catching glove. However, a strap encompassing the wrist of the goalie is still needed since the retainer is not designed to prevent inside-out movement of the catching. Therefore, this improved catching glove fails to provide wrist mobility while preventing glove slippage.

[0005] U. S. Pat. No. 5,802,614 to Melone Jr. describes a glove that supports and stabilizes the wrist and hand during sport. This glove comprises a inner glove portion, an outer glove portion and a strap arrangement that provide a wrist support while assembled. This glove may be used for football, roller hockey, golf and other sport, with or without other sport equipment, and is designed to prevent injuries.

[0006] U.S. Pat. No. 5,937,444 to Hochmut describes a goalkeeper's glove with palm portion that comprises padding layers having thickenings portions. This palm portion of the goalkeeper's glove is designed to improve the ball catching properties of

the glove since it provides a specific arrangement of padding made from latex, which enhances ball gripping properties.

[0007] U.S. Pat. No. 5,329,639 to Aoki describes a protective glove for ice hockey comprising a palm portion quickly removable. A humid palm section can be replaced by a dry palm section to provide a ice hockey player with a better hand sensitivity, which is decreased moisture.

[0008] U.S. Pat. No. 5,107,544 to Capatosto reports a blocker glove comprising a padding structure affixed to a removable close-fitting glove.

[0009] Although background art reports multiple improvements for hockey gloves, slippage problems encountered by hockey goalies remain unresolved since any of the technologies available are specifically designed to provide goalies with wrist mobility while firmly holding catching glove. It would therefore be highly desirable to be provided with a hockey glove adapted for catching a moving article with a relatively free movement along the wrist axis and reduced possibilities of loosing it.

SUMMARY OF THE INVENTION

[0010] It is an object of the present invention to provide an improved sport glove adapted for catching a moving article. According to the present invention the sport glove is formed with an inner compartment. The inner compartment is shaped to dispose a hand of a player therein and is arranged to permit free movement of the hand, and manipulation of the glove in various positions as required, so as to achieve any catching operation. The sport glove comprises a tubular hand wrapper formed to encircle the hand and extending past the wrist until reaching at least knuckles while making sure to allow free movements of all fingers and wrist. The sport glove also comprises means to fix the tubular hand wrapper inside the inner compartment. The sport glove is so constructed and arranged

that when it is worn by the player, it is prevented from escaping from the grip of the hand while allowing the free movement of the hand along the wrist axis and of all fingers.

BRIEF DESCRIPTION OF DRAWINGS

[0011] Fig. 1 is a perspective view of the sport catching glove of the present invention;

[0012] Fig. 2 is a schematic view of the sport catching glove of the present invention with a cutaway portion showing the hand wrapper;

[0013] Fig. 3 is another perspective view of the sport catching glove of the present invention;

[0014] Fig. 4 is a perspective view of the internal hand wrapper of the present invention; and

[0015] Fig. 5 is another perspective view of the internal hand wrapper opened position.

DETAILED DESCRIPTION OF THE DRAWINGS

[0016] Now referring to the drawings, Fig. 1 to Fig. 3 illustrate a hockey goalie catching glove 1 adapted for catching hockey pucks and so constructed and arranged that when it is worn by a goalkeeper, it is prevented from escaping from the grip of the hand while allowing free movement of the hand along the axis of the wrist and, and of all fingers.

[0017] The hockey glove 1 of the present invention comprises an internal hand wrapping glove 3, which will be fully described hereinafter, that is affixed into an internal cavity 4 of catching glove 1. The catching glove 1 comprises a known arrangement of an outer facing 5, an inner facing 7, an outer blocking pad 9, an inner blocking pad 11, a

pocket 13 and a web 15. Also in known manner, pocket 13 and web 15 are arranged to bend along a hand articulation axis 17, which divides catching glove 1 into a thumb portion 19 (Fig.3) and a finger portion 21 (Fig. 1).

[0018] Now referring to figs. 4 and 5, internal hand wrapping glove 3 which will now be described in detail, comprises a generally rectangular hand covering sheet 47, which when fully assembled as shown in Fig. 4 has somewhat the structure of a fingerless glove leaving the thumb and all fingers free to move. Covering sheet 47 of the present invention is designed as a wrapper that in closed position as illustrated in Fig. 4 covers the metacarpus portion only of the hand. It additionally comprises a truncated thumb sleeve 49 that projects therefrom as shown. All in all, the wrapper, when fixed to a hand, allows the thumb and all fingers to emerge free from internal glove. Hand covering sheet 47 is preferably made from leather, however any suitable material, such as fabric and the like could be used as will be appreciated by one skilled in the art.

[0019] With particular reference to Fig. 5 and more details concerning the internal glove, it will be noted that the transverse ends of covering sheet 47 are referred to by reference numerals 53a and 53b. In addition, a lower hand strap 57 and an upper hand strap 55, that are in the shape of longitudinal bands, are both fixed at one end thereof against the outer face of covering sheet 47 as shown. In the illustrated embodiment, end 57a of hand strap 57 is fixed in the outer end portion 56 of covering sheet 47 corresponding to transverse end 53a while end 55a of hand strap 55 is fixed in the same end portion. Hand strap 55 is aligned with upper longitudinal edge 58 of covering sheet 47 and hand strap 57 is aligned with lower longitudinal edge 60 of covering sheet 47. Fixation of hand straps 55 and 57 against the outer face of covering sheet 47 may be carried out by any means known to those skilled in the art, such as by glueing, sewing and the like. To complete the hand strap arrangement, it will be noted that the free ends of

both hand straps 55, 57 are provided with Velcro™ sections 62, 63 although any other mode of fixation may be used with the straps.

[0020] Referring again to Fig. 4, it will be seen that in the end portion 64 adjoining transverse end 53b, there are provided a pair of fixing bands 66, 68, glued or otherwise fixed to the outer face of covering sheet 47, and respectively aligned with transverse edge 58, 60 to mesh with the free ends of hand straps 55, 57 when closing covering sheet 47 in the manner shown in Fig. 4. In the illustrated embodiment, both bands 66, 68 are provided with Velcro™ sections 70, 72 to engage the corresponding Velcro™ sections 62, 63 of hand straps 55, 57

[0021] Covering sheet 47 is fully assembled by contacting straps 55, 57 and band 66, 68, respectively, where Velcro™ sections 70, 72 and corresponding Velcro™ sections 62, 63 provide a proper stretching of covering sheet 47 over the hand of a user. A person skilled in the art will understand that internal glove 3 could be designed differently while maintaining its functionality. As example, internal glove 3 could be made from a continuous covering sheet 47, made from an elastic material. This alternative design would allow straps 55, 57 and fixing bands 66, 68 to be removed while maintaining a proper stretching of sheet 47 over the hand.

[0022] As holding glove 3 is preferably affixed permanently to inner facing 7 and hockey glove 1 provides user with an access to internal cavity 4, the assembly of covering sheet 47 takes place within internal cavity 4. However, use of a temporary fixation device to affix internal glove 3 to inner facing 7 would also provide a user with the possibility of assembling covering sheet 47 over its hand prior fixing internal glove 3 into internal cavity 4.

[0023] The internal hand holding glove 3 is affixed to the internal face 45 of inner facing 7 by sewing lines 48. Alternatively, lace, sewing, rivet or glue could be used to fix

the holding glove 3 to the internal face 45. A person skilled in the art could also replace these permanent fixing means by temporary fixation devices such as snaps, Velcro™ or zippers.

[0024] While the invention has been described with particular reference to the illustrated embodiment, it will be understood that numerous modifications thereto will appear to those skilled in the art. Accordingly, the above description and accompanying drawings should be taken as illustrative of the invention and not in a limiting sense.